Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

FEDERAL COMMUNICATION OFFICE OF THE SECRETARY

In the Matter of

Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems PR Docket No. 93-61 RM 8013

TO: The Commission

INFORMAL COMMENTS OF SOUTHWESTERN BELL MOBILE SYSTEMS, INC. CONCERNING NORTH AMERICAN TELETRAC AND LOCATION TECHNOLOGIES INC.'S APPLICATION FOR FREEZE

Southwestern Bell Mobile Systems, Inc. ("SBMS"), by its attorneys and pursuant to Section 1.41 of the Commission's Rules, 47 C.F.R. §1.41, hereby submits informal comments concerning the Application for Freeze ("Application") filed by North American Teletrac and Location Technologies, Inc. ("Teletrac") in the above-captioned proceeding. Teletrac seeks to have the Commission freeze further grants of automatic vehicle monitoring ("AVM") licenses and special temporary authorizations in the 904-912 and 918-926 MHz bands pending completion of the captioned rulemaking. As demonstrated below, Teletrac's Application is without merit and should be denied. In support of these comments, the following is respectfully shown:

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On April 9, 1993, the Commission released a Notice of Proposed Rulemaking ("NPRM") in this proceeding, 8 FCC Rcd 2502 (1993). In the NPRM, the FCC seeks to expand the scope of AVM service and to redesignate the service as the Location and Monitoring Service ("LMS"). Teletrac's Application would affect licensing under the current AVM rules. Accordingly, SBMS will refer to the service involved as AVM throughout this document.

I. INTRODUCTION

SBMS is a wholly-owned subsidiary of Southwestern Bell Corporation ("SBC"), a publicly traded corporation. Through its various ownership interests, SBMS is one of the largest providers of cellular telephone service in the United States and has been a leader in the development and implementation of advanced telecommunications technologies. SBC, on behalf of SBMS, has been an active participant in RM 8013. See Comments of Southwestern Bell Corporation, RM No. 8013, filed July 24, 1993. SBMS is itself simultaneously filing Comments to the NPRM in this proceeding.

SBMS is a party in interest with respect to the Teletrac Application because it is itself an AVM applicant. SBMS has applied for an AVM system in Chicago, Illinois and is vitally concerned with the continued processing of AVM applications. SBMS is ready, willing and able to commit significant resources to the construction and operation of an AVM system in Chicago and to operate that system under the Commission's current rules. The technology upon which SBMS' application is based is mature and proven. It has been in operation in the state of New South Wales, Australia since 1989 and has a history of performance and reliability.

After accepting grants of hundreds of 904-912 MHz AVM applications nationwide²/ under the Commission's interim rules, Teletrac now shuns the very conditions which were the predicate for

See Opposition of Pinpoint Communications, Inc., RM No. 8013, Appendix A (filed July 23, 1992).

such grants in the first instance. Teletrac has misinterpreted the current rules upon which its request for freeze is based. Moreover, it has failed to demonstrate any legally cognizable harm that will result to itself or any impairment of the agency's permanent AVM licensing process if interim AVM applications continue to be processed and granted. Teletrac's Application is nothing more than a transparent attempt to stifle the implementation of other AVM systems whose operations comply with the interim rules and who would directly compete with Teletrac. Accordingly, Teletrac's Application should be denied.

II. AVM LICENSING RULES CLEARLY PERMIT THE LICENSING OF MULTIPLE SYSTEMS.

Teletrac's construction of the interim AVM rules, of which Teletrac purportedly seeks to prevent further "misapplication," is that wrong. Teletrac contends that under the interim rules adopted in 1974, wideband pulse-ranging AVM systems are to be licensed on an exclusive basis in the 904-912 and 918-926 MHz bands. 3/

In establishing its interim AVM rules, the Commission viewed its spectrum allocation as a means to elicit empirical data from the marketplace concerning public demand for AVM and alternative technologies to deliver the service. See Report and Order, Docket No. 18302, 30 Rad. Reg. 2d 1665, 1672 (1974) ("Interim Order"). It wished to provide an environment of experimentation and specifically encouraged licensees to cooperatively share the AVM spectrum. Id.

^{3/} See Application at 4-5, 6-8, 12 n.21.

Nearly 20 years later in its NPRM, the Commission has reaffirmed that spectrum sharing and experimentation were, in fact, the defining principles for the establishment of interim AVM service:

[Teletrac] contends that the Commission always intended that AVM systems would be licensed on exclusive basis, implying Licensing Division has erred in licensing systems on a non-exclusive basis. . . not find sufficient evidence in any of the Commission's past proceedings or in the interim rules to support this claim. The interim rules were . . intended to promote the technological and marketplace development of AVM systems in general and to provide an environment of experimentation... believe that our licensing methods have reflected this intent. . . [A]t the time the interim rules were adopted there were no licenses being granted on an exclusive basis private land mobile services. Exclusive licenses were not adopted until May, 1974, in PR Docket No. 18262, 46 FCC 2d 752 (1974) and there is no evidence in the Report Order that the Commission was contemplating applying such a new concept to the AVM service. 4

Clearly, the Commission's description of its own intent in adopting and applying the interim rules negates Teletrac's revisionist view of history. 5/

It is well settled that the Commission has broad discretion to make, interpret and apply its own policies. See Marlin Broadcasting v. FCC, 952 F.2d 507, 511 (D.C. Cir. 1992). In the

⁴ NPRM at 2504 n.29 (emphasis added).

Given the Commission's unequivocal explanation in the NPRM, the Application is nothing more than a Petition for Reconsideration of the NPRM. See Opposition To Application For Freeze of AMTECH Corporation, PR Docket No. 93-61, RM No. 8013 (filed June 4, 1993) ("AMTECH Opposition").

case of interim AVM, the Commission has consistently interpreted its rules and policies in the way it does now. NPRM at 2504 n.29. These rules have been in place for nearly twenty years. The Commission has issued hundreds of licenses to multiple entities in the correct understanding that AVM licenses are not exclusive. While the agency is now conducting a comprehensive re-examination of AVM regulations in PR Docket No. 93-61, until new rules are adopted, there is no reason for it to opt for an entirely new construction of existing rules.

- III. THE CONTINUED ACCEPTANCE AND PROCESSING OF AVM APPLICATIONS WILL NOT FRUSTRATE THE COMMISSION'S REGULATORY OBJECTIVES OR HARM TELETRAC.
 - A. Continued Acceptance and Grant of Applications Will Not Prejudice The Commission's Rulemaking.

Not only does Teletrac base its Application on an incorrect interpretation of the interim rules, it provides no evidence of irreversible harm to it or the public interest that will occur in the absence of an application freeze. In fact, while the Commission has discretion to impose a freeze on licensing in certain limited circumstances, it has done so only when it has determined that its regulatory flexibility might otherwise be jeopardized. Such is not the case here. It

See Kessler v. FCC, 326 F.2d 673 (D.C. Cir. 1963); Acceptance of 929-930 MHz One-Way Paging Applications, 6 FCC Rcd 6024 (1991).

Even in instances where the Commission has deemed a freeze appropriate -- a case which has not been shown to exist here -- it has made the freeze prospective to afford adequate notice. See Public Notice, Report No. CL-87-92, released December 15, 1986 (in which the Commission announced the effective date of a freeze on applications to modify Cellular Geographic Service Areas.) More typically, however, the Commission simply makes applications

Teletrac suggests that "without a freeze, continued licensing of narrowband systems in the wideband allocation will increase the potential for interference and actual interference." Many licensees, however, have already gone on record to state that their technologies can function in a multi-operator shared environment without harm. SBMS shares their view. Turthermore there is no exclusive wideband allocation in the AVM band. Given the preconditions for grant of Teletrac's applications, i.e., a willingness to share the spectrum and to cooperate with other inband licensees in good faith to avoid interference, there is no basis for the agency to protect a right which Teletrac never had.

In a shared spectrum environment, it is only natural that additional licensing will, at least theoretically, increase the possibility of interference. This is exactly why SBMS has designed

received during the pendency of a rulemaking subject to its outcome. See Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies In A Land

its system with a high degree of resiliency. 11/ Teletrac's failure to do the same is not a justification for a freeze. Rather than substantiate the need for a freeze, Teletrac's concerns, if true, are more a basis for it to either turn in its licenses to the Commission or have them revoked by the agency.

It is SBMS's belief, and the record shows, that the operation of multiple wideband systems is possible at the present time. 12/
In light of this evidence and the fact that Teletrac has obtained licenses in a myriad of markets, Teletrac's request should be seen for what it is: an attempt to lock out its would be competitors and to stifle further technological wideband development. These anticompetitive objectives are antithetical to the Commission's goals for AVM service and should not be rewarded with a freeze.

B. Although Teletrac May Be Concerned With The Fragility Of Its Own System, Investment In AVM Technology Continues And Should Not Be Discouraged.

Teletrac contends that if license applications are not frozen, future development of AVM systems will be chilled. Teletrac's view does not represent that of the industry as a whole. Unlike Teletrac, SBMS and other entities are continuing to invest in AVM

^{11/} See Affidayit of Keith Rainer. SBMS appreciates Teletrac's

technology for operation in a shared spectrum and have taken the first steps to have their systems implemented. 13/ In short, Teletrac speaks only of its own uncertain commitment to construct its numerous licensed facilities in a shared environment.

Teletrac claims that a freeze on further AVM licensing is in the public interest, but actually a freeze at this time would have the opposite effect. A freeze could in fact limit research and development of advanced technologies currently under way by applicants, such as SBMS, and other parties who have filed comments opposing Teletrac. Only one entity will benefit from a freeze and that is Teletrac.

Given these circumstances, if the FCC is to freeze anything, it should be the award of further authorizations to Teletrac. Teletrac should be reminded, consistent with the Commission's Rules, to cooperate in the sharing of spectrum and to seek mutually

As the record developed in response to Teletrac's Petition for Rulemaking made clear, there has been and is considerable interest and investment in existing and new AVM technologies for operation under the current regulatory structure. See discussion in Reply Comments of AMTECH, RM No. 8013 (filed August 7, 1992) at 10-12 and comments cited therein. Teletrac's apparent reluctance to invest further in its own technology, (see Czerner Affidavit) reflects not current market conditions but Teletrac's concern about buying a seemingly inefficient technology for operation in a shared spectrum environment. Unable to operate its system in this arena, Teletrac obstinately seeks to convince the FCC that spectrum sharing was not

satisfactory solutions with co-channel licensees. 15/ If Teletrac cannot operate in such an environment, it should return its licenses.

Teletrac, ironically, calls SBMS's proposed system a "paper" system. Quite the contrary, the system SBMS intends to introduce to the United States employs a successful technology already operational in Australia. Furthermore, the Quiktrak technology can operate in a shared spectrum environment. As noted above, Teletrac only has operations in six markets¹⁶ though it has held hundreds of authorizations since 1989. Moreover, it is using only 4 MHz of the 8 MHz for which it sought and received authorization. ¹¹ In light of these facts, Teletrac's feeble attempts to disparage SBMS and other AVM applicants are ridiculous. Although the interim rules may undergo modification in certain respects, Teletrac's claims do not rebut the evidence that the current licensing regime is not a deterrent to AVM investment, particularly for a robust system designed to operate in a shared spectrum environment.

^{15/} See 47 C.F.R. §90.173(b).

^{16/} Czerner Affidavit, para. 2.

 $[\]frac{10}{10}$ See Response of Teletrac to the Comments of the Missile Group Old Crows, RM No. 8013 (filed Jan. 14, 1993) at 12.

IV. CONCLUSION

For the foregoing reasons, SBMS respectfully submits that Teletrac's Application is unjustified and should be denied.

Respectfully submitted,

SOUTHWESTERN BELL MOBILE SYSTEMS, INC.

Rv:

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June 29, 1993

PEDERAL COMMUNICATIONS COMMISSION WASHINGTON, D.C. 20554

In the Matter of		
Amendment of Part 90 of) the Commission's Rules) to Adopt Regulations for) Automatic Vehicle	PR Docket No R-8013	. 93-61
Monitoring Systems		

TO: The Commission

AFFIDAVIT OF KEITH RAINER

STATE OF MISSOURI)
COUNTY OF ST. LOUIS)

Keith Rainer, being duly sworn, deposes and says:

- 1. I am a member of the technical staff at Southwestern
 Bell Technology Resources, Inc. ("TRI"), where I have been an
 employee since 1990. At TRI I am involved in work on radio based
 communications systems and products. My specific areas of
 interest include indoor microcellular systems, outdoor and indoor
 wireless data systems, mobile location technology antennas,
 electromagnetic propagation modeling and measurements and radio
 communication protocols.
- 2. I have a bachelor's degree in electrical engineering which I received with honors from Auburn University. I also have an MS in electrical engineering which I received from the Georgia Institute of Technology. I have completed extensive graduate studies beyond my master's degree.
- 3. Following the completion of my bachelor's degree program in 1980, I began employment with Bell Telephone'

Laboratories. While at Bell Laboratories, I worked on the development of digital switches, circuit analysis programs, systems reliability analysis programs, coding for memory management and advanced signaling protocols. During this time period I also completed work on my master's degree.

- 4. In 1983, I left Bell Laboratories and began employment with the Georgia Institute of Technology ("Georgia Tech") as a member of the research faculty where I achieved the position of Senior Research Engineer. While at Georgia Tech I performed extensive research in the areas of applied electromagnetics and communication systems, taught continuing education courses on selected topics in electromagnetics, and was accepted into the electrical engineering doctoral program.
- 5. I have authored and co-authored numerous technical papers and reports on antennas and radio communications systems. I have received two Certificates of Recognition from NASA, an Industrial Design Achievement Award from Rogers Corporation and in 1989, the Outstanding Researcher of the Year Award from the Georgia Tech Research Institute. I am a member of the Eta Kappa Nu and Tau Beta Pi engineering honor societies.
- 6. I have reviewed the Application for Freeze filed by North American Teletrac and Location Technologies, Inc.

 ("PacTel") in the above-captioned matter and the Affidavit of Dr.

 Charles L. Jackson ("Jackson Affidavit") appended thereto.
- 7. Contrary to statements contained in paragraph 12 of Dr. Jackson's Affidavit, based on my personal observation and testing, wideband (spread spectrum) communication systems can

operate reliably co-located (i.e. in the same geographic area and in close proximity) on a co-channel basis in the 902-928 MHz ISM band. This is not to say that in general all wideband (spread spectrum) communication systems will operate reliably co-located (i.e. in the same geographic area and in close proximity) on a co-channel basis in the 902-928 MHz ISM band or that under certain circumstances any will operate reliably. Reliable co-channel operation of co-located wideband systems is dependent on the system design, method of system operation, and the local radio environment. Contrary to statements made in Dr. Jackson's Affidavit, it does not always require one system to have any particular information about the other system(s).

It is my opinion that Southwestern Bell Mobile Systems, Inc.'s ("SBMS") technology can operate reliably in the shared radio environment of the upper LMS band in the 902-928 MHz ISM band, given today's environment and the existence of current licensees. In particular, it is my opinion that SBMS' LMS system can operate reliably in the shared radio environment that exists today co-located with other systems currently operating in the same bands.

Set Rather Raine

Subscribed to and sworn before me this 28th day of June,

Commission Expires:

Notary Public, State of Missouri County of St. Louis My Commission Expires April 7, 1995

CERTIFICATE OF SERVICE

I, Ellen Dorsey a secretary at Gurman, Kurtis, Blask & Freedman, Chartered hereby certify that on this 29th day of June, 1993, a copy of the foregoing INFORMAL COMMENTS OF SOUTHWESTERN BELL MOBILE SYSTEMS, INC. CONCERNING NORTH AMERICAN TELETRAC AND LOCATION TECHNOLOGIES INC.'S APPLICATION FOR FREEZE was served by first class United States mail, postage prepaid on the following parties:

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